

IN THE CLAIMS:

Amend claim 1 as indicated on the enclosed copy of claim 1 bearing the heading "**AMENDED CLAIM**"

A substitute page 32 comprising a clean copy of claim 1 as amended is enclosed.

REMARKS

In response to the October 7, 2003 Office Action, Applicants have amended claim 1 to more specifically define the reduced pipette tip mounting and ejection force mounting shaft comprising their invention. In this regard, claim 1 has been amended to more clearly define the single annular seal and single laterally spaced annular lateral support features of the mounting shaft which aid in producing the desired reduced tip mounting and ejection forces while preventing rocking of the pipette tip on the mounting shaft.

Specifically, amended claim 1 emphasizes a single annular sealing zone on the mounting shaft and a single air-tight seal between the shaft and tip.

Further, amended claim 1 emphasizes a single lateral support feature of the mounting shaft wherein the single lateral support is defined as comprising a lateral support zone on the shaft having an outer diameter which is slightly less than the inner diameter of a lateral support region within the tip creating a space between the lateral support zone and region. That defined spacing for the lateral support zone minimizes the mounting and ejection forces generated by a pipette user during

the mounting of the pipette tip on and the ejection of the pipette tip from the mounting shaft while allowing the lateral support zone to minimize transverse rocking of the pipette on the mounting shaft.

This is to be distinguished from Williams where multiple annular seal and alignment rings combine to necessitate user generation of undesirably high tip mounting and ejection forces during the mounting and ejection of pipette tips onto and from a pipette tip mounting shaft. Specifically, it is to be noted that amended claim 1 specifies a single lateral support on a mounting shaft for a pipette tip and defines that single lateral support in a manner which precludes its including or comprising an alignment ring as taught by Williams. In that regard, Applicants' lateral support zone for the defined pipette tip shaft having an outer diameter that is slightly less than the inner diameter of a lateral support region of the pipette tip is not remotely similar to the alignment ring described by Williams. To the contrary, Williams discloses and clearly teaches that the outer surface 279 of the pipette tip mounting shaft ("pipette 17") contacts the alignment or guide ring 274. In fact, as stated in column 7, lines 57-59, "If desired, this alignment ring can be sized to sealably engage the pipette as well and thus provide a double seal." Clearly, Williams teaches that the diameter of the outer surface 279 of the pipette tip mounting shaft ("pipette 17") is at least equal to and preferably greater than the inner diameter of the alignment or guide ring 274. Such a structure is precluded in Applicants' amended claim 1.

Certainly, any addition of Brysch does overcome the deficiencies of Williams in these regards.

Accordingly, Applicants submit that claim 1 as amended defines invention over all art of record and should be allowed. Such action is earnestly solicited.

Respectively submitted,



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"AMENDED CLAIM"

1. In combination with a pipette tip including substantially cylindrical and axially spaced inner surface regions defining an annular sealing region and an annular lateral support region having predetermined inner diameters, a pipette tip mounting shaft forming a single annular air-tight seal with and a single annular lateral support for the pipette tip, comprising:

an axially elongated body for axially receiving the pipette tip, the axially elongated body comprising

a proximal end portion for support by a pipette to extend axially therefrom,

a distal end remote from the proximal end portion,

a substantially cylindrical outer surface region on the axially extending body adjacent the distal end and defining [an] a single annular sealing zone for mating with the annular sealing region within the pipette tip to form [an] the single air-tight seal between the shaft and the tip, and

a substantially cylindrical outer surface region on the axially elongated body axially spaced from the annular sealing zone and defining an annular lateral support zone and the single annular lateral support for the pipette tip having an outer diameter slightly less than the inner diameter of the substantially cylindrical lateral support region on the inner surface of the pipette tip as to space the lateral support zone

from the lateral support region and thereby minimize mounting and ejection forces generated by a pipette user in mounting the tip on and ejecting the tip from the shaft while minimizing transverse rocking of the pipette tip on the mounting shaft.